

Claims

[c1] What is claimed is:

1.A computer system comprising:

a first processor;

a first serial/parallel data transformer comprising a parallel port and a serial port;

a second serial/parallel data transformer comprising a parallel port and a serial port; and

a control unit for selectively connecting in an electrical fashion the first processor to the parallel port of the first serial/parallel data transformer, the first processor to both the parallel port of the first serial/parallel data transformer and the parallel port of the second serial/parallel data transformer, or the first processor to the serial port of the first serial/parallel data transformer; and electrically connecting the serial port of the first serial/parallel data transformer to the serial port of the second serial/parallel data transformer.

[c2] 2.The computer system of claim 1 further comprising a serial device electrically connected to the serial port of the first serial/parallel data transformer.

[c3] 3.The computer system of claim 1 further comprising

two serial devices respectively electrically connected to the serial port of the first serial/parallel data transformer and the serial port of the second serial/parallel data transformer.

- [c4] 4.The computer system of claim 1 further comprising a second processor electrically connected to the parallel port of the second serial/parallel data transformer.
- [c5] 5.The computer system of claim 4 wherein the first processor has an operational voltage equal to that of the second processor.
- [c6] 6.The computer system of claim 4 wherein the first processor has an operational voltage different from that of the second processor.
- [c7] 7.The computer system of claim 1 further comprising a level shifter electrically connected between the serial port of the first serial/parallel data transformer and the serial port of the second serial/parallel data transformer for adjusting the level of data transmitted between the serial port of the first serial/parallel data transformer and the serial port of the second serial/parallel data transformer.
- [c8] 8.The computer system of claim 1 wherein the control unit is a logic circuit.

- [c9] 9.The computer system of claim 1 wherein the control unit is a program code stored in a memory.
- [c10] 10.The computer system of claim 1 wherein the first serial/parallel data transformer, the second serial/parallel data transformer, and the control unit are integrated on an application specific integrated circuit (ASIC).
- [c11] 11.The computer system of claim 1 wherein the first serial/parallel data transformer is a universal asynchronous receiver/transmitter (UART).
- [c12] 12.The computer system of claim 1 wherein the first serial/parallel data transformer is an inter-IC (I^2C).
- [c13] 13.The computer system of claim 1 wherein the first serial/parallel data transformer is a universal serial bus (USB).
- [c14] 14.The computer system of claim 1 wherein the first serial/parallel data transformer is a Serial Peripheral Interface (SPI).
- [c15] 15.The computer system of claim 1 wherein the first serial/parallel data transformer is a Synchronous Serial Protocol interface (SSP).
- [c16] 16.The computer system of claim 1 wherein the first se-

rial/parallel data transformer is a Microwire interface.

[c17] 17.The computer system of claim 1 wherein the first serial/parallel data transformer is an Inter IC Sound interface (I²S).

[c18] 18.A serial/parallel data transformer module comprising:
a first serial/parallel data transformer comprising a parallel port and a serial port;
a second serial/parallel data transformer comprising a parallel port and a serial port; and
a control unit for selectively connecting in an electrical fashion the parallel port of the first serial/parallel data transformer to the parallel port of the second serial/parallel data transformer or the serial port of the first serial/parallel data transformer to the serial port of the second serial/parallel data transformer.

[c19] 19.The serial/parallel data transformer module of claim 18 further comprising a level shifter electrically connected between the serial port of the first serial/parallel data transformer and the serial port of the second serial/parallel data transformer for adjusting the level of data transmitted between the serial port of the first serial/parallel data transformer and the serial port of the second serial/parallel data transformer.

- [c20] 20.The serial/parallel data transformer module of claim 18 wherein the control unit is a logic circuit.
- [c21] 21.The serial/parallel data transformer module of claim 18 wherein the control unit is a program code stored in a memory.
- [c22] 22.The serial/parallel data transformer module of claim 18 wherein the first serial/parallel data transformer, the second serial/parallel data transformer, and the control unit are integrated on an ASIC.
- [c23] 23.The serial/parallel data transformer module of claim 18 wherein the first serial/parallel data transformer is a UART.
- [c24] 24.The serial/parallel data transformer module of claim 18 wherein the first serial/parallel data transformer is an I²C.
- [c25] 25.The serial/parallel data transformer module of claim 18 wherein the first serial/parallel data transformer is a USB.
- [c26] 26.The serial/parallel data transformer module of claim 18 wherein the first serial/parallel data transformer is a SPI.
- [c27] 27.The serial/parallel data transformer module of claim

18 wherein the first serial/parallel data transformer is a SSP.

[c28] 28. The serial/parallel data transformer module of claim 18 wherein the first serial/parallel data transformer is a Microwire.

[c29] 29. The serial/parallel data transformer module of claim 18 wherein the first serial/parallel data transformer is an I²S.